L Number	Hits	Search Text	DB	Time stamp
8	11	("5906708" "5961877" "6064081").urpn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:34
1	4	("5906708" "5961877" "6064081").pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:39
15	4911	(c carbon) near6 ((Si silicon) near2 (Ge germanium))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:47
22	376	(GeSi SiGe) near6 (C carbon)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:41
29	1	Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:45
30	1	Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:45
31	60	Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:46
32	0	Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:47
39	61	(Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:47
46	5168	((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:49
53	958	((Si silicon) near2 (Ge germanium)) near2 carbide	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:48
60	386	SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:49

67	6121	((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:49
74	2385	(((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) and @ad<19941110	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:56
81	847	(((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) and @rlad<19941110	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:50
88	2718	((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) and @ad<19941110) ((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) and @rlad<19941110)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:51
95	59	(((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) near8 (etch$4 stop$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:56
102	6	((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) near8 (etch$4 stop$4)) and @ad<19941110	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 16:52
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123	14	(Robinson westhoff hunt ling).in. and (((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:08
130	237	(((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) same (etch$4 stop$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:56
137	50	((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) same (etch$4 stop$4)) and @ad<19941110	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:56
144	24	((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) same (etch$4 stop$4)) and @rlad<19941110	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:56
151	65	(((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) same (etch$4 stop$4)) and @ad<19941110) (((((c carbon) near6 ((Si silicon) near2 (Ge germanium))) ((GeSi SiGe) near6 (C carbon)) ((Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.kq)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.wg2)) (Si?sub.$3 near2 Ge?sub.$3 near2 C?sub.$3(c.sub.6-6))) (((Si silicon) near2 (Ge germanium)) near2 carbide) (SiGeC SiCGe GeSiC GeCSi CSiGe CGeSi)) same (etch$4 stop$4)) and @rlad<19941110)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 17:57

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  File 348:EUROPEAN PATENTS  1978-2003/Apr W04
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         1992342  C
          540129  CARBON
           89100  CARBIDE
            2921  (SILICON OR SI)(2N)(GE OR GERMANIUM)(2N)((C OR CARBON) OR
                  CARBIDE)
             544  SIGEC
              16  GESIC
              24  ETCH?(10N)(((SILICON OR SI)(2N)(GE OR GERMANIUM)(2N)((C
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 2/9/1     (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4451273   INSPEC Abstract Number: B9309-2550B-010
   Title:  Etch-stop  layers  in  silicon  produced  by  implantation  of
electrically inactive impurities
  Author(s): Qin-Yi Tong; Feijoo, D.; Cha, G.; Horng-Ming You; Gosele, U.
  Author Affiliation: Dept. of Mech. Eng. & Mater. Sci., Duke Univ.,
Durham, NC, USA
  Conference Title: Proceedings of the Fifth International Symposium on
Silicon-on-Insulator Technology and Devices    p.384-402
  Editor(s): Bailey, W.E.
  Publisher: Electrochem. Soc, Pennington, NJ, USA
  Publication Date: 1992  Country of Publication: USA    xi+440 pp.
  Conference Sponsor: Electrochem. Soc
  Conference Date: 17-22 May 1992    Conference Location: St. Louis, MO,
USA
  Language: English    Document Type: Conference Paper (PA)
  Treatment: Practical (P); Experimental (X)
  Abstract:  Etch -stop layers in silicon have been produced by
implantation of carbon , argon, neon, silicon and germanium which are
all electrically inactive impurities in silicon with doses of no more than
3E16/cm/sup 2/. Etch-stop performances in ethylenediamine-pyrocatechol-wate
r are attributed to chemical (bond energy), structural (amorphization
extent), electrical (electron lifetime) and mechanical (strain level)
characteristics of the layers formed by silicon with implanted impurities.
(22 Refs)
  Subfile: B
  Descriptors: etching; impurities; integrated circuit technology; ion
implantation; semiconductor-insulator boundaries; silicon; VLSI
  Identifiers: etch stop layers; SOI material; ULSI; electrically inactive
impurities; implantation; ethylenediamine-pyrocatechol-water; implanted
impurities; Si-SiO/sub 2/; Si:C,Ar,Ne,Ge
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Class Codes: B2550B (S[redacted]conductor doping); B2530F (Metal-insulator-semiconductor structures); B2550E (Surface treatment); B2570F (Other MOS integrated circuits)
Chemical Indexing:
Si-SiO2 int - SiO2 int - O2 int - Si int - O int - SiO2 bin - O2 bin - Si bin - O bin - Si el (Elements - 1,2,2)
Si:C,Ar,Ne,Ge ss - Ar ss - Ge ss - Ne ss - Si ss - C ss - Ar el - Ge el - Ne el - Si el - C el - Ar dop - Ge dop - Ne dop - C dop (Elements - 1,1,1,1,1,5)

2/9/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC

03625776 INSPEC Abstract Number: A90069884, B90036304
Title: Silicon etching with oxygen molecular beam assisted by predeposited germanium
Author(s): Tatsumi, T.; Niino, T.; Hirayama, H.
Author Affiliation: Fundamentals Res. Labs., NEC Corp., Kawasaki, Japan
Journal: Applied Physics Letters vol.56, no.7 p.635-7
Publication Date: 12 Feb. 1990 Country of Publication: USA
CODEN: APPLAB ISSN: 0003-6951
U.S. Copyright Clearance Center Code: 0003-6951/90/070635-03$02.00
Language: English Document Type: Journal Paper (JP)
Treatment: Experimental (X)
Abstract: Si was etched using an O/sub 2/ molecular beam according to the chemical reaction 2Si+O/sub 2/ to 2SiO up arrow . The minimum etching temperature was decreased by 25 degrees C when a Ge layer had been deposited on a clean Si surface before **etching** . At 800 degrees **C** , the **Ge** -coated **Si** surface was **etched** while the clean Si surface was not. The O/sub 2/ partial pressure during etching was 2*10/sup -5/ Torr; the etching rate was about 80 AA/min at 800 degrees C. Auger electron spectroscopy showed that the number of Ge atoms slightly decreased during Si etching. Ge atoms on the surface are thought to weaken Si back bonds by forming a thin Ge-Si alloy layer on the surface. Undercutting at the SiO/sub 2/ mask edge was suppressed by this Ge predeposition technique at 800 degrees C because the sidewall without Ge was not etched at this temperature. (3 Refs)
Subfile: A B
Descriptors: Auger effect; elemental semiconductors; germanium; silicon; sputter etching; surface diffusion
Identifiers: semiconductor; etching; chemical reaction; etching temperature; O/sub 2/ partial pressure; etching rate; Auger electron spectroscopy; Si back bonds; 800 degC; O/sub 2/ molecular beam; Si surface; Ge-Si alloy layer; Si-Ge
Class Codes: A8160C (Semiconductors); A7920F (Electron impact: Auger emission); A7920N (Atom, molecule, and ion impact); A6822 (Surface diffusion, segregation and interfacial compound formation); B2550E (Surface treatment and oxide film formation); B2520C (Elemental semiconductors)
Chemical Indexing:
Si-Ge int - Ge int - Si int - Ge el - Si el (Elements - 1,1,2)
O2 el - O el (Elements - 1)
Si sur - Si el (Elements - 1)
Ge-Si int - Ge int - Si int - Ge el - Si el (Elements - 1,1,2)
Numerical Indexing: temperature 1.07E+03 K

2/9/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

01455842 INSPEC Abstract Number: A80016517
Title: Use of ion-plasma etching for treatment and study of surface layers of crystals
Author(s): Grigor'ev, O.N.; Karban', V.I.; Onipko, A.F.; Trefilov, V.I.
Journal: Fizika i Khimiya Obrabotki Materialov no.3 p.30-4

Publication Date: May-[redacted]e 1979 Country of Publicatio[redacted]SSR
CODEN: FKOMAT ISSN: 0015-3214
Language: Russian Document Type: Journal Paper (JP)
Treatment: Experimental (X)
Abstract: The results of the ion-plasma high-frequency **etching** of single crystals of diamond, **silicon** , **germanium** , sapphire, **silicon carbide** and chromium are presented. A correlation is established between the rate of etching and the machinability of these materials. The feasibility of and good long-term prospects for the use of ion-plasma etching in order to eliminate, investigate and measure the magnitude of the damaged surface layers of a wide group of materials are demonstrated. (5 Refs)
Subfile: A
Descriptors: ceramics; chromium; diamond; germanium; sapphire; silicon; silicon compounds; sputter etching; surface structure
Identifiers: single crystals; diamond; sapphire; machinability; damaged surface layers; Si; Ge; SiC; Cr; ion plasma HF etching
Class Codes: A8160 (Corrosion, oxidation, etching, and other surface treatments)

2/9/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC

01285369 INSPEC Abstract Number: A79005213
Title: Oxygen distribution profiles in thin evaporated contacts on single crystal silicon
Author(s): Petersson, S.; Norde, H.; Possnert, G.; Orre, B.
Author Affiliation: Inst. of Technol., Uppsala, Sweden
Journal: Nuclear Instruments and Methods vol.149, no.1-3 p.285-8
Publication Date: 15 Feb.-1 March 1978 Country of Publication: Netherlands
CODEN: NUIMAL ISSN: 0029-554X
Conference Title: Proceedings of the Third International Conference on Ion Beam Analysis
Conference Date: 27 June-1 July 1977 Conference Location: Washington, DC, USA
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Experimental (X)
Abstract: The nuclear resonance in the /sup 16/O(alpha , alpha)/sup 16/O elastic scattering reaction at 3.045 MeV has been used in concentration profile measurements of oxygen in thin-film structures. The concentration profile can be deduced from an energy scan of the incoming alpha -particles, thus shifting the resonance to different depths in the sample. The method has been applied to studies of the structures (a) an **etched** Si-surface, (b) Au evaporated on **Si** , and (**c**) a Au- **Ge** - **Si** structure. Evidence is presented for the presence of oxygen in the Au layer and in the Ge layer. (12 Refs)
Subfile: A
Descriptors: alpha particle-nucleus scattering; chemical analysis by nuclear reactions and scattering; electrical contacts; elemental semiconductors; nuclear resonance reactions and scattering; silicon
Identifiers: nuclear resonance; /sup 16/O(alpha,alpha)/sup 16/O elastic scattering reaction; concentration profile measurements; etched Si-surface; O profiles; thin film structures; Au-Si structure; Au-Ge-Si structure
Class Codes: A6820 (Solid surface structure); A6848 (Solid-solid interfaces); A8280 (Chemical analysis and related physical methods of analysis)

2/9/5 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online

01233453 ORDER NO: AAD92-21220

THE RAMAN DIAGNOSTICS AND PROCESS PHYSICS OF LASER-INDUCED SURFACE MODIFICATIONS

Author: TANG, HUA
Degree: PH.D.
Year: **1992**
Corporate Source/Institution: COLUMBIA UNIVERSITY (0054)
Adviser: IRVING P. HERMAN
Source: VOLUME 53/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 1424. 209 PAGES
Descriptors: PHYSICS, ELECTRONICS AND ELECTRICITY; ENGINEERING, ELECTRONICS AND ELECTRICAL
Descriptor Codes: 0607; 0544

Raman microprobe spectroscopy is used to analyze laser surface processing, including cw laser heating of Si microstructures, melting of **c - Si** and **c - Ge**, and chemical **etching** of **c - Si** and copper films.

In the investigation of steady-state laser heating of silicon disk microstructures on fused silica and sapphire substrates, the Raman frequency shift and lineshape are compared to simulated Raman spectra. These simulations utilize temperature profiles calculated by a finite element analysis of the heat flow equation. The inhomogeneity of the temperature profiles strongly affects the energy shifts and linewidths of the Raman spectra.

Polarization Raman microprobe spectroscopy is used to study laser-induced melting in c-Si and c-Ge. At their respective melting points, the Raman shifts of solid Si and Ge are 481.7 and 281.4 cm$\sp{-1}$, and the linewidths are 24.3 and 14.1 cm$\sp{-1}$. Optical-phonon coupling both to two and to three phonons is used to explain the temperature dependence of the Raman linewidth. Thermal expansion and coupling to two phonons are important in determining anharmonic corrections to the Raman energy shift, while coupling to three phonons is relatively less important. The real-time Raman spectrum is also used to probe the progress of silicon flow during melting and the trench depth during laser-assisted etching.

The reactions of copper films on glass with chlorine are studied at room temperature and during laser heating. Raman scattering is used to follow the transformation of the copper film in situ to the copper chlorides, CuCl and CuCl$\sb2$. The thin film product formed at ambient temperature without laser heating is shown to be CuCl, while the deposit-like line produced during scanning laser heating is mostly CuCl$\sb2$. Post-processing profilometry is used to measure the etching rate for different laser powers, laser scan speeds and chlorine pressures. A model was developed that successfully describes laser etching at low chlorine pressures, high laser powers, and fast laser scan speeds. In other regimes a thick copper chloride layer forms during the reaction of the copper film with chlorine, which inhibits the laser etching.

2/3/6 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00638279
Method for etching boron nitride.
Atzverfahren fur Boron-Nitrid.
Procede de gravure de nitrure de Bore.
PATENT ASSIGNEE:
INTERNATIONAL BUSINESS MACHINES CORPORATION, (200125), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)
INVENTOR:
Nguyen, Son Van, 7 Clove Court, Hopewell Junction, Vermont 12533, (US)
Dobuzinsky, David Mark, 29 Shenandoah Road, Hopewell Junction, Vermont 12533, (US)
LEGAL REPRESENTATIVE:
Schafer, Wolfgang, Dipl.-Ing. (62021), IBM Deutschland Informationssysteme GmbH Patentwesen und Urheberrecht, D-70548 Stuttgart, (DE)
PATENT (CC, No, Kind, Date): EP 619600 A2 941012 (Basic)
EP 619600 A3 941130
APPLICATION (CC, No, Date): EP 94103684 940310;
PRIORITY (CC, No, Date): US 45570 930409
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: H01L-021/311; C04B-041/53; H01L-023/498;
ABSTRACT WORD COUNT: 76

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF2	322
SPEC A	(English)	EPABF2	1220
Total word count - document A			1542
Total word count - document B			0
Total word count - documents A + B			1542

2/3/7 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00572132
Method and apparatus for producing variable spatial frequency control in plasma assisted chemical etching.
Methode und Vorrichtung zum plasmaunterstutzten chemischen Atzen mittels variabler, raumlich aufgeloster Frequenzsteuerung.
Methode et appareil de gravure assistee par plasma utilisant un controle spatial variable.
PATENT ASSIGNEE:
Hughes Aircraft Company, (214911), 7200 Hughes Terrace, P.O. Box 80028, Los Angeles, California 90080-0028, (US), (applicant designated states: CH;DE;FR;GB;LI;NL;SE)
INVENTOR:
Mumola, Peter B., 22 April Lane, Huntington, CT 06484, (US)
LEGAL REPRESENTATIVE:
Colgan, Stephen James et al (29461), CARPMAELS & RANSFORD 43 Bloomsbury Square, London WC1A 2RA, (GB)
PATENT (CC, No, Kind, Date): EP 565259 A1 931013 (Basic)
APPLICATION (CC, No, Date): EP 93302128 930322;
PRIORITY (CC, No, Date): US 854718 920323
DESIGNATED STATES: CH; DE; FR; GB; LI; NL; SE
INTERNATIONAL PATENT CLASS: H01J-037/32;
ABSTRACT WORD COUNT: 153

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count

CLAIMS A	(English)	EPABF1	1018
SPEC A	(English)	EPABF1	1684
Total word count - document A			2702
Total word count - document B			0
Total word count - documents A + B			2702

2/3/8 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00572131
Apparatus and method for shielding a workpiece holding mechanism from depreciative effects during workpiece processing.
Vorrichtung und Verfahren zur Abschirmung einer Wertstuckhaltevorrichtung von schadlichen Einflussen wahrend der Verarbeitung des Werkstuckes.
Appareil et procede pour blinder un mecanisme de maintient d'une piece a traiter des effets depreciateurs pendant le traitement de la piece.
PATENT ASSIGNEE:
Hughes Aircraft Company, (214911), 7200 Hughes Terrace, P.O. Box 80028, Los Angeles, California 90080-0028, (US), (applicant designated states: CH;DE;FR;GB;LI;NL;SE)
INVENTOR:
Mumola, Peter B., 22 April Lane, Huntington, CT 06484, (US)
LEGAL REPRESENTATIVE:
Colgan, Stephen James et al (29461), CARPMAELS & RANSFORD 43 Bloomsbury Square, London WC1A 2RA, (GB)
PATENT (CC, No, Kind, Date): EP 562784 A1 930929 (Basic)
EP 562784 B1 950607
APPLICATION (CC, No, Date): EP 93302127 930322;
PRIORITY (CC, No, Date): US 855404 920323
DESIGNATED STATES: CH; DE; FR; GB; LI; NL; SE
INTERNATIONAL PATENT CLASS: H01L-021/00;
ABSTRACT WORD COUNT: 179

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	700
CLAIMS B	(English)	EPAB95	713
CLAIMS B	(German)	EPAB95	647
CLAIMS B	(French)	EPAB95	868
SPEC A	(English)	EPABF1	2666
SPEC B	(English)	EPAB95	2577
Total word count - document A			3366
Total word count - document B			4805
Total word count - documents A + B			8171

2/3/9 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00525308
High area capacitor formation using material dependent etching.
Herstellung eines Kondensators mit hoher Oberflache unter Verwendung einer Materialabhangigen Atzung.
Fabrication d'un condensateur a grande surface utilisant une attaque chimique dependante du materiau.
PATENT ASSIGNEE:
International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)
INVENTOR:
Oehrlein, Gottlieb S., 2614 Ridge Street, Yorktown Heights, N.Y. 10598, (US)
Rubloff, Gary W., Redcoat Lane, Waccabuc, N.Y. 10597, (US)
Patel, Vishnubhai V., 2289 Willoway Street, Yorktown Heights, N.Y. 10598,

(US)
Grill, Alfred, 85 Overlook Road, White Plains, N.Y. 10605, (US)
Hodgson, Rodney T., 822 Pines Bridge Road, Ossining, N.Y. 10562, (US)
LEGAL REPRESENTATIVE:
Monig, Anton, Dipl.-Ing. (8591), IBM Deutschland Informationssysteme GmbH, Patentwesen und Urheberrecht, D-70548 Stuttgart, (DE)
PATENT (CC, No, Kind, Date): EP 539685 A1 930505 (Basic)
APPLICATION (CC, No, Date): EP 92114415 920824;
PRIORITY (CC, No, Date): US 785634 911031
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: H01L-021/3205; H01L-021/334; H01L-027/108; H01L-029/92;
ABSTRACT WORD COUNT: 96

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	724
SPEC A	(English)	EPABF1	3127
Total word count - document A			3851
Total word count - document B			0
Total word count - documents A + B			3851

2/3/10 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00407226
Method and apparatus for the plasma etching, substrate cleaning or deposition of materials by D.C. glow discharge.
Verfahren und Gerat zum Plasmaatzen, Reinigen von Substraten oder zum Bekleiden mit Stoffen mittels Gleichstrom-Glimmentladung.
Methode et appareil pour la gravure par plasma, le nettoyage de substrats ou le depot de materiau par decharge luminescente en courant continu.
PATENT ASSIGNEE:
THE UNIVERSITY OF TORONTO INNOVATIONS FOUNDATION, (607831), 203 College Street, Suite 205, Toronto, Ontario M5T 1P9, (CA), (applicant designated states: BE;DE;FR;GB;IT;NL)
INVENTOR:
Zukotynski, Stefan, 32 Maryvale Crescent Richmond Hill, Ontario L4C 6P8, (CA)
Kruzelecky, Roman V, 352 Brigadoon Drive Hamilton, Ontario L9C 6X4, (CA)
Gaspari, Franco, 142 Abbeywood Drive Don Mills, Ontario M3B 3B7, (CA)
Ukah, Clement I., 30 Charles Street West, No. 1623, Toronto Ontario M4Y 1R5, (CA)
LEGAL REPRESENTATIVE:
Horton, Andrew Robert Grant et al (32021), BOWLES HORTON Felden House Dower Mews High Street, Berkhamsted Hertfordshire HP4 2BL, (GB)
PATENT (CC, No, Kind, Date): EP 418438 A1 910327 (Basic)
APPLICATION (CC, No, Date): EP 89309530 890919;
PRIORITY (CC, No, Date): EP 89309530 890919
DESIGNATED STATES: BE; DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: H01J-037/32;
ABSTRACT WORD COUNT: 249

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	728
SPEC A	(English)	EPABF1	3610
Total word count - document A			4338
Total word count - document B			0
Total word count - documents A + B			4338

2/3/11 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00340643

Method of creating a high flux of activated species for reaction with a remotely located substrate.

Verfahren zur Erzeugung eines hohen Flusses von aktivierten Teilchen fur die Reaktion mit einem entfernt angeordneten Substrat.

Procede de production d'un flux eleve de particules activees pour la reaction avec un substrat eloigne.

PATENT ASSIGNEE:
ENERGY CONVERSION DEVICES, INC., (489790), 1675 West Maple Road, Troy Michigan 48084, (US), (applicant designated states: DE;FR;GB)

INVENTOR:
Doehler, Joachim, 6183 Venice Dr., Union Lake, MI 48085, (US)
Hudgens, Stephen, 2 Alexandria Towne, Southfield, MI 48075, (US)
Ovshinsky, Stanford, 2700 Squirrel Rd., Bloomfield Hills, MI 48013, (US)
Dotter II, Buddy, 7460 Flickenger, Utica MI 48087, (US)
Peedin, Lester, 24041 Moritz, Oak Park, MI 48237, (US)
Krisko, Jeffrey, 590 Tomahawk Trail, Highland, MI 48031, (US)
Krisko, Annette, 590 Tomahawk Trail, Highland, MI 48031, (US)

LEGAL REPRESENTATIVE:
Muller, Hans-Jurgen, Dipl.-Ing. et al (8691), Muller, Schupfner & Gauger Maximilianstrasse 6 Postfach 10 11 61, D-80085 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 343355 A1 891129 (Basic)
EP 343355 B1 931215
APPLICATION (CC, No, Date): EP 89106375 890411;
PRIORITY (CC, No, Date): US 199062 880526
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: C23C-016/30; H01L-021/205;
ABSTRACT WORD COUNT: 152

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	864
CLAIMS B	(German)	EPBBF1	778
CLAIMS B	(French)	EPBBF1	914
SPEC B	(English)	EPBBF1	12683
Total word count - document A			0
Total word count - document B			15239
Total word count - documents A + B			15239

2/3/12 (Item 7 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00236821

Apparatus and method for photochemical vapor deposition.

Apparat und Verfahren fur den photochemischen Niederschlag von Dampfen.

Appareil et procede pour la deposition photochimique de vapeur.

PATENT ASSIGNEE:
UNIVERSITY OF DELAWARE, (240840), South College Avenue, Newark Delaware, (US), (applicant designated states: DE;FR;GB;NL)

INVENTOR:
Jackson, Scott C., 3518 Hopkins Drive, Wilmington Delaware, (US)
Rocheleau, Richard E., 3420 Pebble Beach Drive, Wilmington Delaware, (US)

LEGAL REPRESENTATIVE:
Wagner, Karl H. et al , WAGNER & GEYER Patentanwalte Gewuerzmuehlstrasse 5 Postfach 246, D-8000 Munchen 22, (DE)

PATENT (CC, No, Kind, Date): EP 235522 A2 870909 (Basic)
EP 235522 A3 900328
APPLICATION (CC, No, Date): EP 87100565 870117;
PRIORITY (CC, No, Date): US 835331 860303
DESIGNATED STATES: DE; FR; GB; NL
INTERNATIONAL PATENT CLASS: H01L-021/205

ABSTRACT WORD COUNT: 83

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	645
SPEC A	(English)	EPABF1	4673
Total word count - document A			5318
Total word count - document B			0
Total word count - documents A + B			5318